GEOLOGICAL REPORT
ON THE
ALSTER CLAIM GROUP
VANCOUVER MINING DIVISION
49° 35' North Latitude - 122° 55' West Longitude

FOR

NEW ALSTER ENERGY LTD.
#620 - 625 Howe Street
Vancouver, B.C., V6C 2T6

BY

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November 13, 1985

14058

85-827-14036

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SUMMARY

The area under discussion is owned by New Alster Energy Ltd. and consists of 24 units located in the vicinity of Vancouver in southwestern British Columbia. The Alster claim group lies immediately east of Indian River straddling Mesilloet Creek within 30 kms of Squamish, being accessible by a four-wheel drive logging road. The claim group lies approximately 20 kms east of the Brittania Anaconda Mine which ceased primary production in 1974. The Maggie Mines property is approximately 10 kms northwest.

Three contrasting rock types are present on the claim group. Granodiorites of the Coast intrusions are found exclusively on the north part of the claim group. Volcanics with numerous interbedded sediments are located on all mapped areas of the claim group. The volcanic rocks have been subjected to various degrees of metamorphism with the occasional formation of greenstone. Traces of sulphides are quite ubiquitous in the volcanics and their associated sediments but only rarely do they occur in significant quantities.

A significant gold geocheical anomaly, i.e., 260 ppb was obtained this season at station MX-151 in the vicinity of an anomalous zone discovered during the 1982 program. A rock sample yielded very high values in Pb, Zn and Cu with significant anomalies in Ag and Au.

INTRODUCTION

On behalf of New Alster Energy Ltd. the writer geologically

mapped most of the surface outcrops on the Alster claim group. The author was engaged in early October being contracted by Trans-Arctic Exlorations. The mapping scale used was 1:5,000. He was assisted by D. Jones and R. Simpson.

PROPERTY AND OWNERSHIP

Claim Name	No. of Units	Record No.	Expiry Date
FRED 3	20	1041	Oct. 8, 1985
F	1	1042	Oct. 8, 1985
R	1	1043	Oct. 8, 1985
E	1	1044	Oct. 8, 1985
D	1	1045	Oct. 8, 1985

The expiry date shown does not take into account the work under discussion as being accepted for assessment credits.

The claim group is owned by New Alster Energy Ltd. of Vancouver, British Columbia.

LOCATION AND ACCESS

The Alster claims are located at geographical co-ordinates 122° 55' west longitude and 49° 35' north latitude. The claims are approximately forty kms due north of Vancouver and are south of the Mamquam River on Mesilloet Creek.

The area can be reached by following the Mamquam River road which branches off Provincial Hwy. #99 immediately south of Squamish then heading south on the Stawamus River road. This road is followed for 20 kms before turning east to cross Indian River and

taking a road on the north side of Meslilloet Creek for approximately 1 km. Much of the claim group would be accessible by four-wheel drive if the old logging roads were cleared of brush.

PHYSIOGRAPHY

This area is located in the southern part of the Pacific Ranges which is a unit of the Coast Mountains. The terrain is very rugged to precipitous with many sheer cliffs on the south part of the claims. The elevations range from 250 m to 1,800 m with general relief from valleys to mountain tops being about 1,000 m. The Meslilloet Creek flows through the heart of the claim group which is disected by major northwest drainage systems. The extreme ruggedness of the terrain makes access to some areas of the group very difficult.

FLORA AND FAUNA

Most of the claims are very densely forested (except of course in cut blocks) with Red Cedar and Douglas Fir being the dominant species, spruce hemlock and tamarack are also present. In the valleys thick brush includes many brambles and nettles, making traversing very difficult. The most prolific wild animals include black bear, cougar, deer and moose.

CLIMATE

The region has a humid coastal climate with heavy precipitation particularly during the winter months. In the areas of higher elevation, i.e. over 1,000 m, snowfalls are exceedingly heavy with 10 metres not unusual. Winters are relatively mild by interior standards with frequent thaws; snow is very ephemereal in the valley bottoms. Summers are mild by interior standards with only moderate amounts of rain but with high humidity.

EXPLORATION LOGISTICS

Meslilloet Creek, a large permanent stream flowing through the heart of the claim group would provide ample water for drilling and other exploration purposes. A good supply of timber is present on the claims. Any required supplies would be easily obtainable from Vancouver only 95 road kms distant.

HISTORY OF PREVIOUS WORK

The well known Anaconda Mine near Brittania Beach which was in production from 1905 to 1974 is situated approximately 20 kms west of the Alster claims. A total of 55 million tons of ore grading 1.1% Cu, 0.65% Zn, 0.2 oz/ton of Ag and 0.02 oz/ton of Au was mined. Much exploration work has been accomplished on the Maggie Mines property which is approximately 10 kms northwest of the Alster claims. A Turam geophysical survey was accomplished on

this property in 1970 and the work done from 1977 to 1981 included geological mapping, trenching, diamond drilling and geochemistry on diamond drill core, soils and stream sediments. On the Alster claim group New Alster Energy did an airborne magnetic and VLF-EM survey during the summer of 1982. A soil geochemistry survey was accomplished along a logging road during autumn 1982.

REGIONAL GEOLOGY OF AREA

The Coast Plutonic Complex is a belt of granitoid and metamorphic rocks which extend northwest from Burrard Inlet, Vancouver through Alaska and into the Yukon for 1,800 kms. The rocks are the product of several major distinct igneous intrusions and metamorphisms with the average composition being that of a granodiorite. Many sediments including sandstones, argillites, cherts and limestones also commonly outcrop.

The Alster group is underlain by metasedimentary and metavolcanic the Cretaceous Coast Range intrusions. The favourable metavolcanics appear to be of rhyolitic to dacitic composition in association with argillites, cherts, anhydrites and minor barite units. Cropping out discontinuously as pendants within the granites are the greenstones which are the host rocks for the Brittania and Northair mines plus the Maggie, MacVicar, Seneca and Fire Lake prospects. Many pendants in the southern Coast Mountains form long narrow northwest trending belts many of which follow major lineaments. The greenstones are metamorphosed to the lower greenschist facies and are intensely deformed.

GEOLOGY OF THE ALSTER CLAIM GROUP

The author has divided the rocks mapped on this property into five different units: granitoids (or granodiorites), diorite, volcanics, sediments and greenstones.

The granitoids are obviously of the Coast Range intrusions. Judging by the grey colour of the feldspars they are perhaps granodiorites though it is impossible to tell without microscopic examination. The colour index is about 20 with hornblende being the dominant mafic. Quartz composes approximately 30% of rock and grey feldspar (plagioclase?) 40%, with small amounts of feldspar of a paler colour (alkali feldspar?) forming about 10% of rock. The grain size is usually in the range of 4 to 8 mm though occasionally grains 14 mm long were noted; these rocks are equigranular though generally the felsic components are a little coarser grained. A little epidote is frequently present on alteration surfaces and this often gives the rocks a greenish colour though usually they are coloured light grey. An interesting feature is the presence of xenoliths of porhyritic volcanic material located in many of the granitics; the occasional volcanic sill is also found intruding these plutonic rocks. The granitics were noted mainly on the north central parts of the claims usually on road cuts.

The volcanic rocks are quite variable particularly in grain size. They frequently vary considerably even over short lateral distances, often being gradational to fine grained diorites. Because of this occurring, the division between the diorites and the volcanics is sometimes arbitrary. The volcanics are volumetrically the most abundant rock type outcropping on the claims. Much epidote and quartz veining is present as are beds of quartzite. In certain places the volcanics are transitional to greenstones and

indeed the volcanics have undergone a little metamorphism. The volcanics as defined by the writer are aphanitic to porphyritic igneous rocks that were intruded at or near the surface of the ground. They are usually coloured various shades of green, i.e. greyish green, dark green to occasionally brownish green. Sometimes the rock is shades of grey occasionally grading to black. Sometimes all these colours may be found in one outcrop.

Judging by their colour and composition of phenocrysts the volcanics are probably of dacitic to andesitic composition. Most of the volcanic rock noted by the author is porphyritic in an aphanitic ground mass with the size of the phenocrysts and their total percentage in the rock matrix varying considerably. In places they form only a few percent of the rock, while several metres away they may compose 50% of the rock. The phenocrysts vary in size from barely visible, (i.e. less than 1 mm), to about 1 cm long. Usually there is a positive correlation between phenocrystal abundance and size, the greater the percentage of phenocrysts in the rock, the larger the phenocrysts will be. Most phenocrysts are composed of plagioclase with no phenocrysts of other compositions visible in outcrop. Hornblende and quartz are occasionally noted as phenocrysts, the latter mineral indicating a quite felsic magma. In any case the plagioclase phenocrysts are always the most numerous and largest sized; on average the phenocrysts compose about 30% of the rock. The volcanics are occasionally vesicular with zeolites sometimes present within them and on the surface rock. Sulphides are commonly present in this rock, usually in trace amounts, albeit occasionally as on the west side of the Fred #3 claim they are quite abundant. In this locale a little chalcopyrite, galena and sphalerite were noted in addition to the ubiquitous pyrite. Occasionally the grains of the matrix in the volcanics are barely visible to the unaided eye marking a transition to fine grained diorite.

The diorites are probably more closely allied to the volcanic rocks than the granitics. The mineralogy is quite similar to the former rocks and these two rock types are often gradational. Some of the diorites are quite felsic with a colour index as low as 30 though 50 is more common. Hornblende is the dominant mafic, though in places it has been metamorphosed to actinolite. Grain size is usually 1 to 3 mm though in occasional outcrops it varies from 6 to 10 mm with hornblende crystals being the largest. These quite coarse grained rocks, however, blend imperceptibly into the finer grained types, and a little brownish Fe-staining is sometimes present on the external surfaces. Some outcrops contain visible quartz, up to 12% so this rock grades into a tonalite though the colour index is about 40; this rock is identical in all other aspects to the diorites. Quartz and epidote veining are frequently present and these veins are sometimes volumetrically prominent. Minute specks of sulphides are ubiquitous and occasionally occur in large amounts but only pyrite was noted.

Beds of greyish-green to watery-green quartzite are frequently found adjacent to and in intimate contact with the volcanics. These beds are often host to epidote and quartz veins. Some of the quartzite is greyish in colour and rather impure and especially here on external surfaces, much barite and carbonate are present. Minute specks of sulphides and Fe-oxides are often visible in hand specimen with the occasional large patch of sulphide present.

The greenstones are fine grained metamorphosed volcanic rocks which contain many more ferromagnesians; their colour index is over 70 and though the rocks are quite fine grained the grains of the matrix are clearly visible. Amphiboles of a hornblende and actinolite composition and epidote are both visible. This rock is volumetrically sparse; it is closely associated with the volcanics.

STRUCTURAL GEOLOGY

The regional structure is dominated by transposition of pendants of the older metavolcanics in northwest striking attitudes. In places these are accompanied by massive regional shear zones such as the Brittania shear. Structure and stratigraphy in this area are complicated and not well known. The structure in the area of the Maggie Mines consists of tight folds and the transposition of rocks into S-Tectonites. Most pendants in this area of the Coast Mountains might be graben-like structures. Most plutons in this area were intruded by forcible injection and wedging apart from the strata with accompanying radial distension and deformation of the wall rocks.

Faulting and a couple of shear zones were discovered on the Alster claim group. There are many open fractures in the cliffs albeit no discernable movement occurred on either side of most of them. Neither does there seem to be any preferential mineralization associated with these fractures. The mapped sediments are usually massive and any visible structures including bedding planes are rarely discernable.

HISTORICAL GEOLOGY

It has recently been ascertained that the processes involved in the formation of the Coast Mountains were more complex than previously realized. The magmatic origin of the plutonic rocks has recently been questioned and some others have concluded that the plutonic rocks evolved from metamorphic rocks during slow wet retrograde metamorphism. Because of the paucity of fossils the

age of the strata in most pendants is unknown. Both the absolute and relative ages of most plutons are unknown.

By the Early Cretaceous the rocks had been eroded sufficiently to expose plutonic and metamorphic rocks. Folding and migmatization of the Central Gneiss Complex preceded deposition of sedimentary strata. Extensive volcanic activity occurred in the area in the Early Cretaceous, a thick section of strata was deposited during the same period. The stratified rocks were deformed before the metamorphism and emplacement of most of the major plutons in the area. The main episode of metamorphism was concluded before the end of the Cretaceous. Extensive uplifting and unroofing of all these rocks occurred during the Late Cretaceous and Early Tertiary.

ECONOMIC POTENTIAL

Sulphides, albeit frequently in minute quantities, are ubiquitous in the volcanics and sediments of the Alster group. The Brittania Anaconda Mine and Maggie Mines property are within close proximity of the Alster claims. The Brittania Cu-Zn sulphide deposits have recently been interpreted to be volcanogenic in origin. They were deposited from hydrothermal and exhalative solutions related to contemporaneous dacite volcanism and then deformed during later shearing and faulting. Massive sulphide deposits occur near the upper contact of coarse dacite tuff. Anhydrite, chert and barite form related exhalative deposits. The main sulphides on Maggie Mines property are pyrite, pyrrhotite, chalcopyrite, sphalerite and galena, only traces of gold and silver are present. The iron sulphides are often disseminated in some of the volcanoclastic units while the principal occurrences of the other

sulphides is associated with silicified zones. Significant intersections of copper, lead, zinc and silver within a possible massive sulphide volcanogenic mineral belt parallel to and six km from the Brittania ore zone has been reported.

The greatest concentration of sulphides noted in the Alster claim group was on the western edge of the Fred #3 claim particularly along road cuts. Much mineralization was also noted on crown grants only slightly west of the Alster property. No trenches or workings of any sort were noted by the author. The fact that the greatest concentration of sulphides occurred along road cuts may imply that large quantities occur in the subsurface of many outcrops. As would be expected, pyrite was the most ubiquitous sulphide noted and frequently the only one visible in hand specimen. Albeit pyrite was almost ubiquitous in most volcanic rocks and often in sediments, it usually occurs only in trace amounts. This is not very significant as one expects to find traces of sulphides in almost any volcanic rock as a little sulphide material is an integral part of most igneous magmas. The sulphides occurred usually disseminated randomly in the rock matrix without any preferential orientation or pattern. The granitic rocks were completely devoid of any visible sulphide.

On the west edge of the Fred #3 claim along road cuts one occasionally finds chalcopyrite, galena and perhaps sphalerite in addition to the ubiquitous pyrite; this latter mineral occasionally composes 10% of rock. But even when present, the economically important sulphides occur only in the merest traces in the rock, barely visible to the naked eye. Most of these sulphides occur in porphyritic volcanic rock, particularly near contactswith sedimentary rock (mainly chert) and near epidote and quartz veining. These veins do not host any visible sulphides but it is quite possible that a genetic relationship exists between the veining and the sulphides. Greenstone, i.e. amphibolite, is found adjac-

ent to the greatest sulphide concentrations albeit little if any sulphides were visible in hand specimen. Nevertheless, greenstones have frequently hosted many mineral deposits.

Although no shear zones were noted by the author much small scale faulting was noted on much of the claims. There was a lack of mineralization associated with these structures but some might occur in the subsurface. Due to the extreme ruggedness of much of the terrain the writer was unable to map much of the eastern part of the claim. Perhaps much mineralization is present here and indeed parts of this claim may never have been prospected. The large number of contacts present on the claim and the presence of greenstone augurs well for mineral deposits as does the presence of adjacent mines. The large percentage of iron oxides and the occurrence of carbonate and barite are also hopeful indicators. A small soil sample survey was done on the north part of the claims and a couple significant gold anomalies were obtained. Considering all the positive factors displayed by this claim group they are certainly worthy of future exploration. A soil geochemisry survey conducted in conjunction with the geological mapping, resulted in a significant gold anomaly of 260 ppb which correlates with a similar anomaly obtained from the 1982 survey.

DISCUSSION OF GEOCHEMICAL RESULTS

A total of 44 soil samples were initially collected on the northeast portion of the property just north of Meslilloet Creek. The line spacing was on a 20 metre contour interval with samples collected every 40 metres. Three weeks later an additional 25 samples were picked up in the vicinity of a significant gold anomaly discovered at DMX-151 during the initial sampling survey.

The results from this later survey returned mainly background gold values with the exception of one anomalous gold value again in the vicinity of the initial gold anomaly; high copper values were also noted.

A total of five rock samples were analyzed for lead, zinc, copper, silver and gold. Two were collected slightly west of the Alster claim group boundary with the other three collected from the western side of the FRED 3 claim. Significant rock geochem results were obtained frm the latter area, i.e. sample #55623 which yielded 10,000 ppm zinc, 4,000 ppm lead, 3,400 ppm copper, 7.1 ppm silver and 33 ppb gold.

Respectfully submitted,
TRANS-ARCTIC EXPLORATIONS LTD.

Guy Royer, Geologist

BIBLIOGRAPHY

Mark, David G., Geochemical Report on Soil Geochemistry Survey over the Fred Claim Group, Squamish Area, B.C., January, 1984, Vancouver.

Woodsworth, G.J., Metamorphism, Deformation and Plutonism in the Mount Raleigh Pendant, Coast Mountains, British Columbia, Geol. Survey Bull. 295, January 1977, Ottawa.

CERTIFICATE

I, Guy A. Royer am a consulting geologist for Trans-Arctic Explorations Ltd. of Vancouver, British Columbia.

I hereby certify that:

1. I am a graduate of the University of Saskatchewan with a B.Sc. degree in geology.

2. I have been practising my profession for five years.

3. I have no interest, beneficial or otherwise in the property of New Alster Energy Ltd.

4. I am the author of this report, which is primarily based upon my personal observations made while in the field.

Dated at Vancouver, B.C. this 13 day of November, 1985.

Guy A. Royer, B.Sc.

COST BREAKDOWN

Re: Alster Claim Group - total 24 units
Work was conducted from October 1st to 7th, 1985

Claim Name	No. of Units	Record No.	Expiry Date
FRED 3	20	1041	Oct. 8, 1985
F	1	1042	Oct. 8, 1985
R	1	1043	Oct. 8, 1985
E	1	1044	Oct. 8, 1985
D	1	1045	Oct. 8, 1985

Work
- Geological mapping/soil sampling of anomalies
- Map 92G/10W
- Vancouver Mining Division

Personnel
- G. Royer, geologist
- D. Jones, assistant
- R. Simpson, supervisor

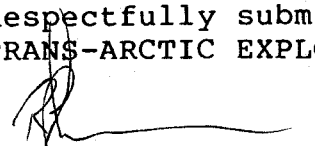
FIELD

Geologist, 47.5 hours at $30/hour	$ 1,425.00
Assistant, 47.5 hours at $20/hour	950.00
Supervisor, 1 day at $200/day (incl vehicle)	200.00
4x4, truck, 7 days at $110/day (including gas and oil)	770.00
Room and board, 7 days at $100/day	700.00
Lab analysis, 44 soil samples at $8.50/sample	373.00
Total	$ 4,419.00

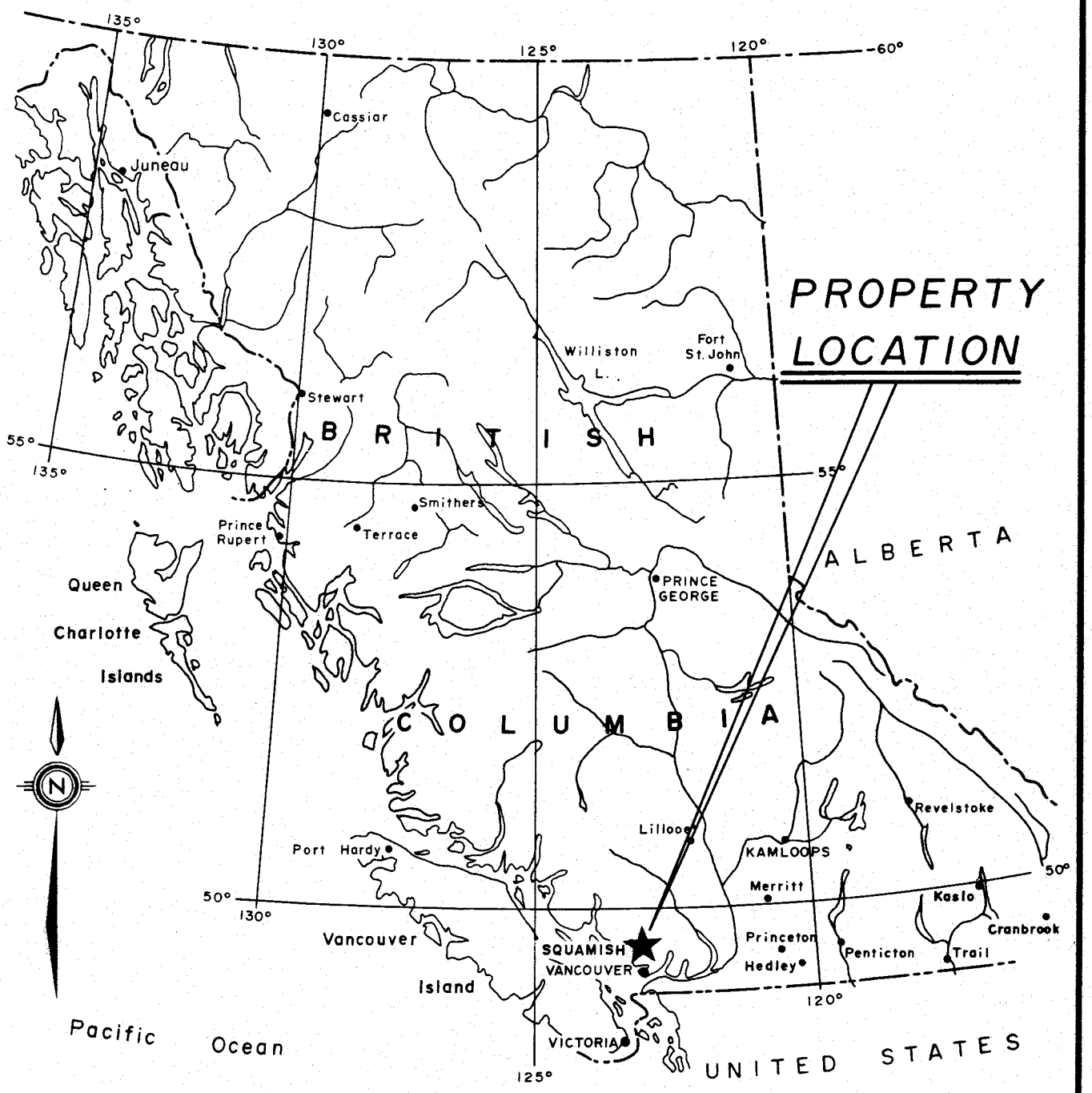
OFFICE

Report compilation, drafting and copying	$ 1,000.00
Grand total	$ 5,419.00

Respectfully submitted
TRANS-ARCTIC EXPLORATIONS LTD.



R.S. Simpson
General Manager

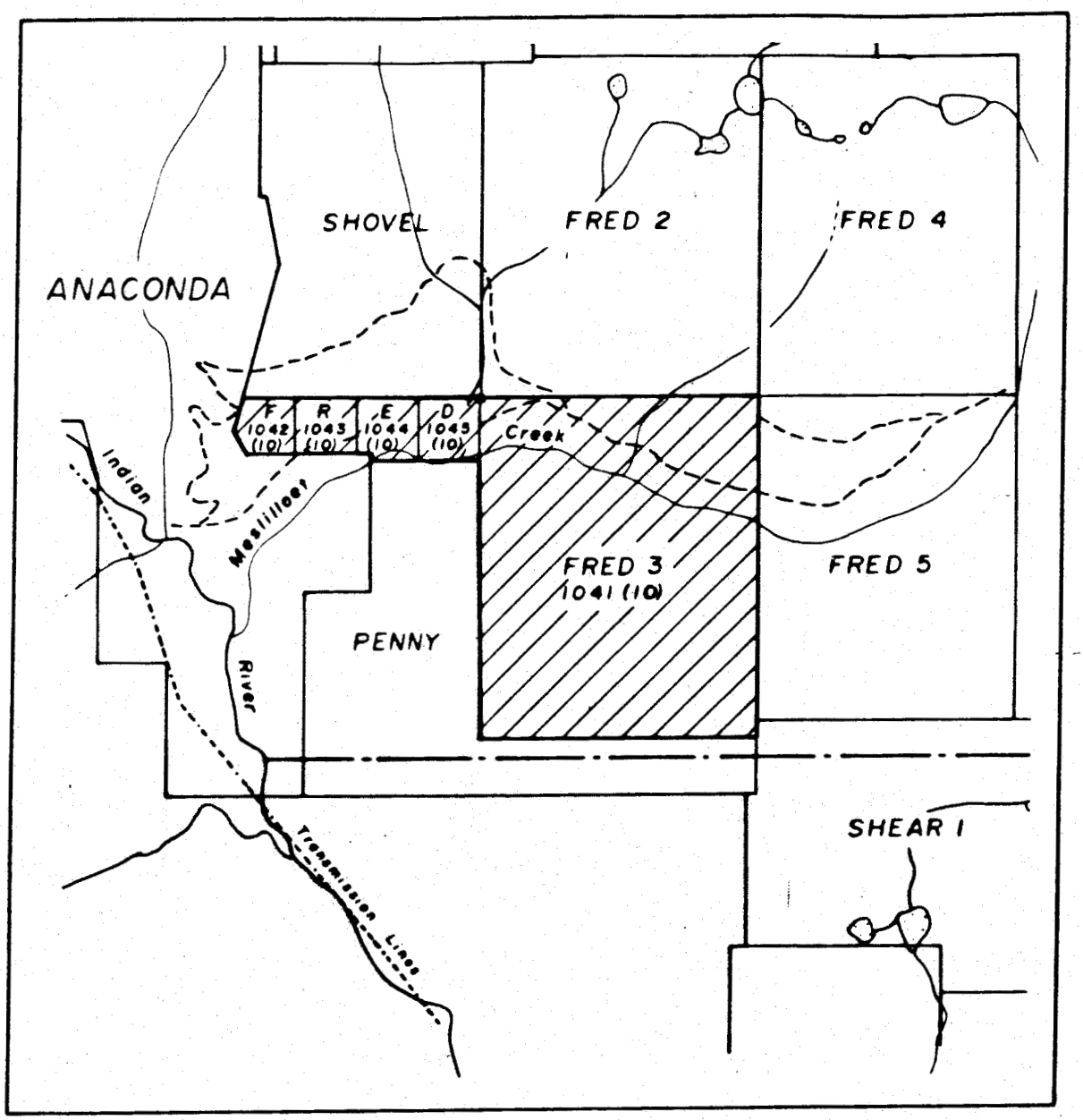


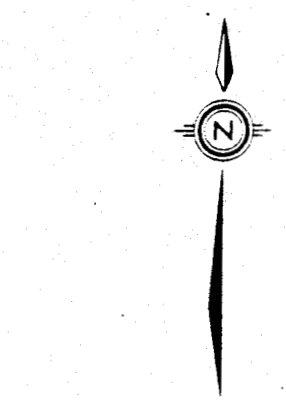
ALSTER CLAIM GROUP

100 0 100 200 300 400 Km.

100 0 100 200 Mi.

MAP 1 BRAD'S DRAFTING SERVICES





NEW ALSTER ENERGY LTD.

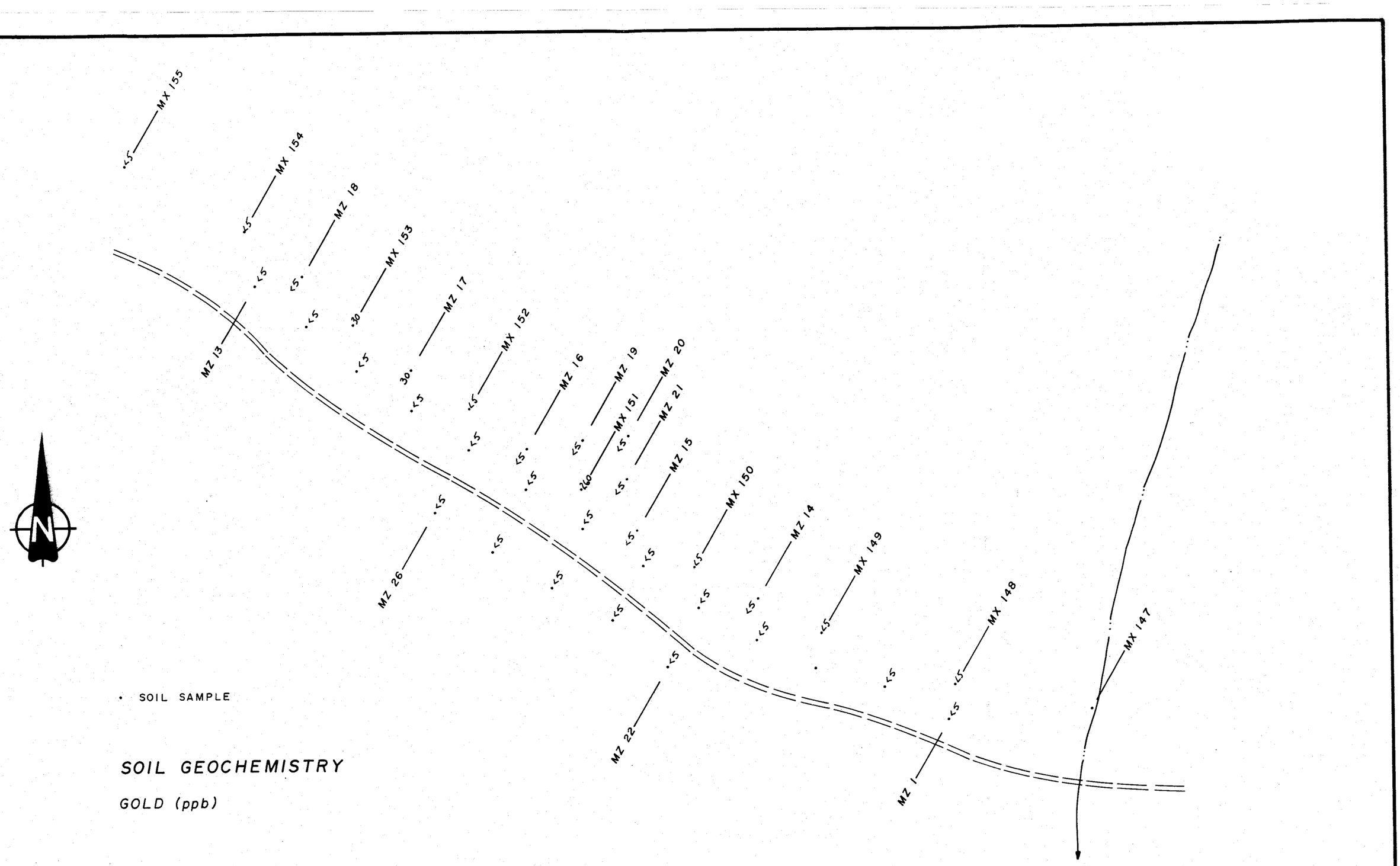
ALSTER CLAIM GROUP

MESLILLOET CREEK, SQUAMISH AREA

VANCOUVER M. D., B. C.

CLAIM LOCATION MAP

SCALE	DATE:	MAP:	N.T.S
1:50,000	OCT. 85.	2	92 G/10 W



• SOIL SAMPLE

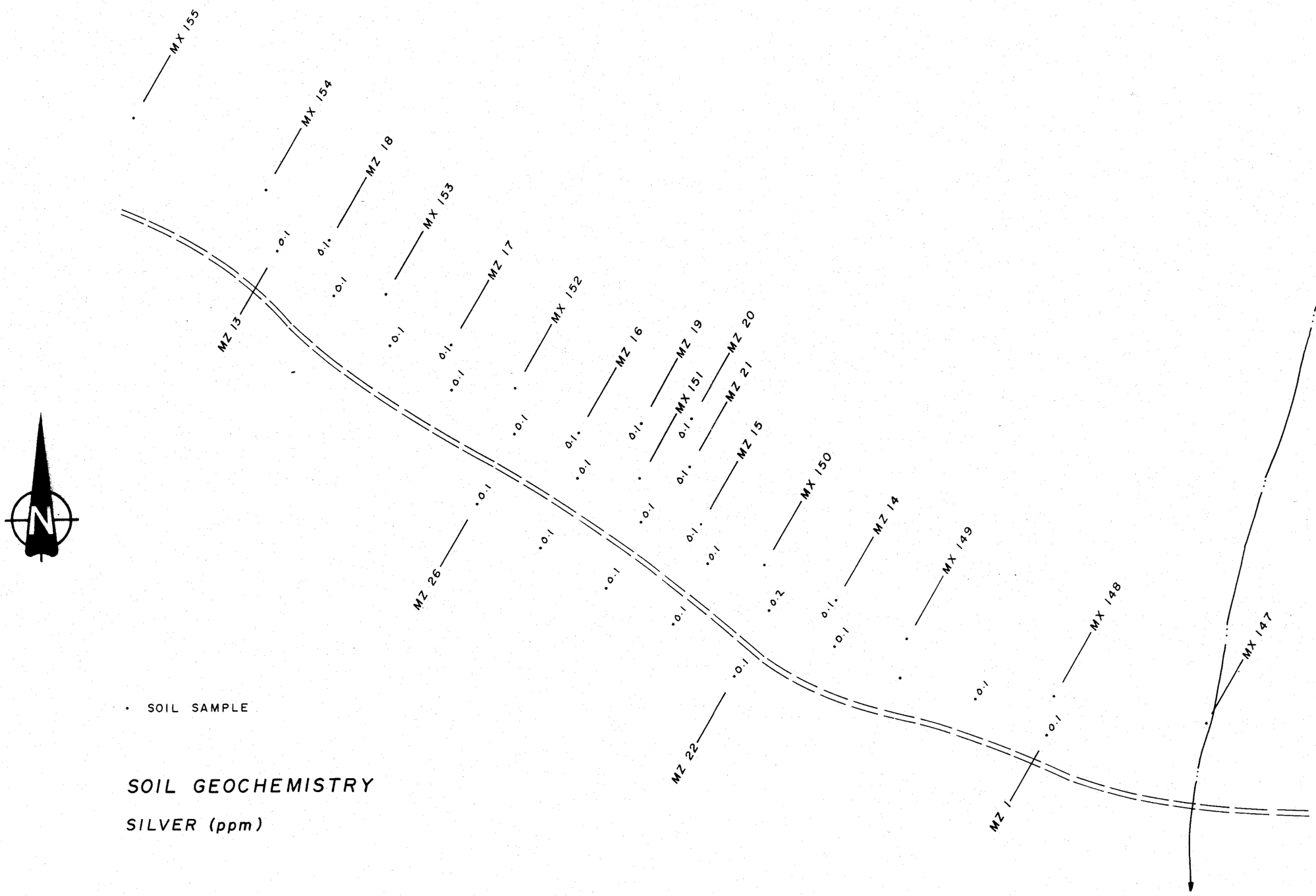
SOIL GEOCHEMISTRY

GOLD (ppb)

50 0 50

METRES

MAP 4



• SOIL SAMPLE

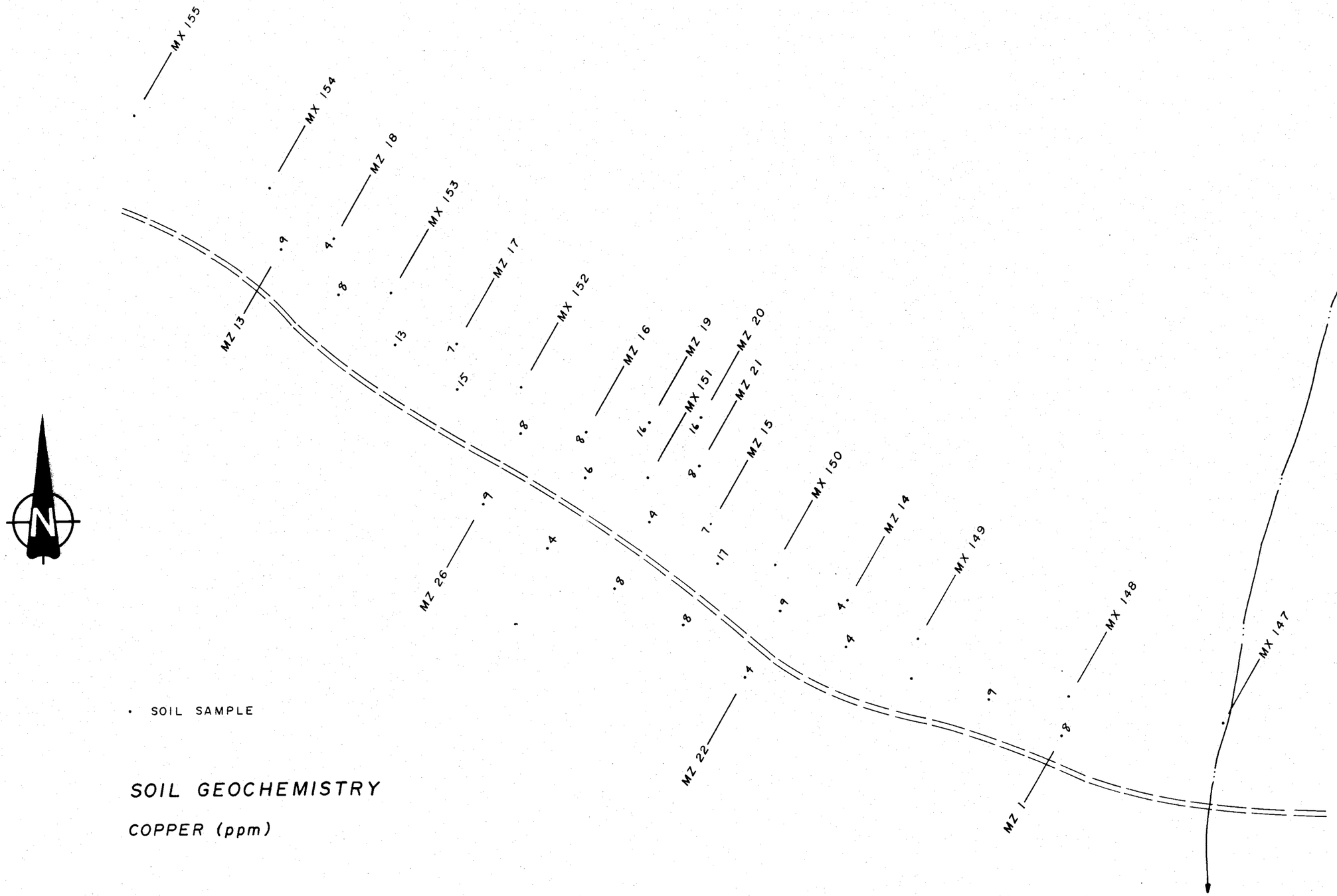
SOIL GEOCHEMISTRY

SILVER (ppm)

50 0 50

METRES

MAP 5



• SOIL SAMPLE

SOIL GEOCHEMISTRY

COPPER (ppm)

MAP 6

GEOLOGY

- GRANITIC ROCKS
- DIORITES, QUARTZ DIORITES
- APHANITIC VOLCANICS, PORPHYRITIC VOLCANICS
- GREENSTONES, AMPHIBOLITES
- SEDIMENTARY ROCKS

SYMBOLS

- STRIKE AND DIP
- ROCK SAMPLE
- LIMIT OF OUTCROP
- OVERBURDEN BOUNDARY, DEFINED, INFERRED
- FAULT
- SOIL SAMPLE LINE WITH STATION & Au VALUE (ppb)
- PROPERTY BOUNDARY
- LEGAL CORNER POST
- ROAD
- CREEK

ROCK GEOCHEMICAL ASSAY

SAMPLE No.	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
55620	493	6	173	1.6	10
55621	100	3	38	0.2	4
55622	25	2	80	0.3	< 1
55623	3400	4000	< 10000	7.1	33
55624	20	26	95	0.2	< 1

250 m 0 500 metres

FIELD WORK CARRIED OUT BY: TRANS-ARCTIC EXPLORATIONS LTD

GEOLOGICAL BRANCH
ASSESSMENT REPORT

14,036

To Accompany Report By: GUY A. ROYER, Geologist.

NEW ALSTER ENERGY LTD.

ALSTER CLAIM GROUP

MESLILLOET CREEK, SQUAMISH AREA

VANCOUVER M.D., B.C.

GEOLOGY MAP

SCALE:	DATE:	N.T.S.	MAP:	DRAFTED BY:
1:5,000	OCT. 85.	92 G/10W	3	B.D.S.